COVID-19 weekly update

May 21st 2021

clinical management

**Title:** Convalescent plasma in patients admitted to hospital with COVID-19 (RECOVERY): a randomised controlled, open-label, platform trial

The Lancet | 14th May 2021

Many patients with COVID-19 have been treated with plasma containing anti-SARS-CoV-2 antibodies. The aim of this research was to evaluate the safety and efficacy of convalescent plasma therapy in patients admitted to hospital with COVID-19.

The study concludes that in patients hospitalised with COVID-19, high-titre convalescent plasma did not improve survival or other prespecified clinical outcomes.

Full article: [Convalescent plasma in patients admitted to hospital with COVID-19 (RECOVERY): a randomised controlled, open-label, platform trial](https://www.thelancet.com/action/showPdf?pii=S0140-6736%2821%2900897-7)

**Title:** Changes in in-hospital mortality in the first wave of COVID-19: a multicentre prospective observational cohort study using the WHO Clinical Characterisation Protocol UK

The Lancet Respiratory Medicine | 14th May 2021

Mortality rates in hospitalised patients with COVID-19 in the UK appeared to decline during the first wave of the pandemic. This paper aimed to quantify potential drivers of this change and identify groups of patients who remain at high risk of dying in hospital.

The reduction in in-hospital mortality in patients with COVID-19 during the first wave in the UK was partly accounted for by changes in the case-mix and illness severity. A significant reduction in in-hospital mortality was associated with differences in respiratory support and critical care use, which could partly reflect accrual of clinical knowledge. The remaining improvement in in-hospital mortality is not explained by these factors, and could be associated with changes in community behaviour, inoculum dose, and hospital capacity strain.

Full paper: [Changes in in-hospital mortality in the first wave of COVID-19: a multicentre prospective observational cohort study using the WHO Clinical Characterisation Protocol UK](https://www.thelancet.com/action/showPdf?pii=S2213-2600%2821%2900175-2)

**Title:** Cytokine adsorption in patients with severe COVID-19 pneumonia requiring extracorporeal membrane oxygenation (CYCOV): a single centre, open-label, randomised, controlled trial

The Lancet Respiratory Medicine | 14th May 2021

The authors of this paper sought to clarify the benefit of cytokine adsorption in patients with COVID-19 supported with venovenous extracorporeal membrane oxygenation (ECMO).

Early initiation of cytokine adsorption in patients with severe COVID-19 and venovenous ECMO did not reduce serum IL-6 and had a negative effect on survival. Cytokine adsorption should not be used during the first days of ECMO support in COVID-19.

Full article: [Cytokine adsorption in patients with severe COVID-19 pneumonia requiring extracorporeal membrane oxygenation (CYCOV): a single centre, open-label, randomised, controlled trial](https://www.thelancet.com/action/showPdf?pii=S2213-2600%2821%2900177-6)

**Title:** Antivirals against SARS-CoV-2 by autumn?

BMJ | 2021; 373: n1215 | 17th May 2021

The UK government has launched a covid-19 antivirals taskforce with the aim of deploying drugs for home treatment by autumn this year. The description suggests that the government wants direct acting orally administered drugs that reduce replication and help eliminate SARS-CoV-2 from the body. Taken after a positive swab test result or prophylactically after exposure, these drugs could reduce viral transmission, morbidity, and mortality.

This editorial suggests that effective antivirals would be highly valuable in the fight against covid-19, but states that policy must be realistic and based on evidence, not hope or unfounded optimism. The UK government’s target to deliver antiviral home treatments within the next few months seems overly ambitious, it says, and care must be taken to ensure that the rush does not force blunders, or indeed repeat previous ones.

Full editorial: [Antivirals against SARS-CoV-2 by autumn?](https://www.bmj.com/content/373/bmj.n1215)

Related: [UK launches antivirals taskforce to deliver home treatments by autumn](https://www.bmj.com/content/373/bmj.n1077?ijkey=e5d4b8820661fc7508f7cdd9a16d0388d1d7d265&keytype2=tf_ipsecsha) | BMJ

**Title:** Tocilizumab in the treatment of COVID-19 - a meta-analysis

QJM | 19th May 2021

The objective of this study was to evaluate whether IL-6 inhibitor tocilizumab (TCZ) reduces mortality among hospitalized COVID-19 patients.

The authors conclude that treatment with TCZ reduces 28-30 days all-cause mortality, ICU admission, superinfections, MV and the combined endpoint of death or MV. Among critically ill patients, and when steroids were used for most patients, no mortality benefit was demonstrated. Additional research should further define sub-groups that would benefit most and preferred timing of administration of TCZ in severe COVID-19.

Full article: [Tocilizumab in the treatment of COVID-19 - a meta-analysis](https://academic.oup.com/qjmed/advance-article/doi/10.1093/qjmed/hcab142/6278365)

**Title:** Characteristics Associated With Multisystem Inflammatory Syndrome Among Adults With SARS-CoV-2 Infection

JAMA Network Open | 19th May 2021

A postacute COVID-19 multisystem inflammatory syndrome (MIS) has been recognized as a rare, yet severe, complication of SARS-CoV-2 infection. First characterized in children,MIS in adults (MIS-A) has now been reported.

The goal of this cohort study was to describe the spectrum of MIS-A presentation after SARS-CoV-2 infection. The authors identified cases of MIS-A among all adults with laboratory-proven subacute or convalescent SARS-CoV-2 infection at a single tertiary care medical center and described their clinical characteristics and outcomes.

The patients with MIS-A identified in this cohort have a broader distribution of organ involvement and lower illness severity compared with those in previously published series. Most patients who met the MIS-A criteria were not identified as such by the primary clinical team.

These data suggest that, although uncommon, MIS-A has a more heterogeneous clinical presentation than previously appreciated and is commonly underdiagnosed. Future investigations, including prospective enrollments, are necessary to improve the diagnostic and treatment approaches for patients with MIS-A.

Full detail: [Characteristics associated with multisystem inflammatory syndrome among adults with SARS-CoV-2 infection](https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2779957)

See also: [The multisystem inflammatory syndrome in adults with Sars-Cov-2 infection—another piece of an expanding puzzle](https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2779960) | JAMA Network Open

**Title:** Assessment of the Association of Vitamin D Level With SARS-CoV-2 Seropositivity Among Working-Age Adults

JAMA Network Open | 19th May 2021

Question: Are low levels of vitamin D independently associated with the risk of SARS-CoV-2 seropositivity?

Findings:  In this cohort study of 18 148 individuals whose vitamin D levels were measured before the COVID-19 pandemic, low levels of vitamin D were associated with SARS-CoV-2 seropositivity in unadjusted univariable analysis. However, after adjusting for potentially confounding factors, including age, sex, race/ethnicity, education, body mass index, blood pressure, smoking status, and geographical location, vitamin D level was not associated with SARS-CoV-2 seropositivity.

Meaning: Although SARS-CoV-2–seropositive individuals did have lower vitamin D levels than seronegative individuals, low vitamin D levels were not independently associated with the risk of seropositivity.

Full detail: [Assessment of the association of Vitamin D level with Sars-Cov-2 seropositivity among working-age adults](https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2779952)

See also: [Reassessing the association of Vitamin D Level with SARS-CoV-2 seropositivity](https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2779959) | JAMA Network Open

recovery

**Title:** Support and follow-up needs of patients discharged from intensive care after severe COVID-19: a mixed-methods study of the views of UK general practitioners and intensive care staff during the pandemic’s first wave

BMJ Open | 11th May 2021

The aim of this study was to identify follow-up services planned for patients with COVID-19 discharged from intensive care unit (ICU) and to explore the views of ICU staff and general practitioners (GPs) regarding these patients’ future needs and care coordination.

The authors obtained 170 survey responses and conducted 23 interviews. Over 60% of GPs were unaware of the follow-up services generally provided by their local hospitals and whether or not these were functioning during the pandemic. Eighty per cent of ICUs reported some form of follow-up services, with 25% of these suspending provision during the peak of the pandemic and over half modifying their provision (usually to provide the service remotely).

Common themes relating to barriers to provision of follow-up were funding complexities, remit and expertise, and communication between ICU and community services. Discharge documentation was described as poor and lacking key information. Both groups mentioned difficulties accessing services in the community and lack of clarity about who was responsible for referrals and follow-up.

The pandemic has highlighted long-standing issues of continuity of care and complex funding streams for post-ICU follow-up care. The large cohort of ICU patients admitted due to COVID-19 highlights the need for improved follow-up services and communication between specialists and GPs, not only for patients with COVID-19, but for all those discharged from ICU.

Full paper: [Support and follow-up needs of patients discharged from intensive care after severe COVID-19: a mixed-methods study of the views of UK general practitioners and intensive care staff during the pandemic’s first wave](https://bmjopen.bmj.com/content/bmjopen/11/5/e048392.full.pdf)

**Title:** Wellbeing across the four UK countries during the pandemic

Nuffield Trust | 20th May 2021

The last year has had an unprecedented impact on every aspect of our society, from health care and education to work and travel. Despite restrictions easing, the ramifications of Covid-19 on people’s lives and livelihoods are extensive. This article and accompanying charts explores just how the pandemic has affected wellbeing across the UK.

The charts show how levels of anxiety, happiness and feelings of worthwhileness and life satisfaction compared across the four countries of the UK between April 2019 and March 2020, and April to September 2020.

From last April, feelings of worthwhileness, life satisfaction and happiness fell across the whole of the UK. There was also a marked increase in anxiety (albeit only marginally in Northern Ireland). Increased anxiety was particularly seen in areas that had on average poorer health status, and among people who considered their own health to be ‘bad’ or ‘very bad'.

Full detail: [Wellbeing across the four UK countries during the pandemic](https://www.nuffieldtrust.org.uk/resource/chart-of-the-week-wellbeing-across-the-four-uk-countries-during-the-pandemic)

**Title:** Post-COVID syndrome in non-hospitalised patients with COVID-19: a longitudinal prospective cohort study

The Lancet Regional Health – Europe | 17th May 2021

While the leading symptoms during coronavirus disease 2019 (COVID-19) are acute and the majority of patients fully recover, a significant fraction of patients now increasingly experience long-term health consequences. However, most data available focus on health-related events after severe infection and hospitalisation. The authors of this study present a longitudinal, prospective analysis of health consequences in patients who initially presented with no or minor symptoms of severe acute respiratory syndrome coronavirus type 2 (SARS-CoV-2) infection. Hence, we focus on mild COVID-19 in non-hospitalised patients.

The on-going presence of either shortness of breath, anosmia, ageusia or fatigue as long-lasting symptoms even in non-hospitalised patients was observed at four and seven months post-infection and summarised as post-COVID syndrome (PCS). The continued assessment of patients with PCS will become a major task to define and mitigate the socioeconomic and medical long-term effects of COVID-19.

Full paper: [Post-COVID syndrome in non-hospitalised patients with COVID-19: a longitudinal prospective cohort study](https://www.thelancet.com/action/showPdf?pii=S2666-7762%2821%2900099-5)

**Title:** Risk of clinical sequelae after the acute phase of SARS-CoV-2 infection: retrospective cohort study

BMJ | 2021; 373: n1098 | 19th May 2021

The objective of this study was to evaluate the excess risk and relative hazards for developing incident clinical sequelae after the acute phase of SARS-CoV-2 infection in adults aged 18-65.

14% of individuals aged ≤65 who were infected with SARS-CoV-2 developed at least one new type of clinical sequelae that required medical care after the acute phase of the illness, which was 4.95% higher than the 2020 comparator group.

An increased risk of specific clinical sequelae after the acute infection was noted across a range of organ systems, including cardiovascular, neurologic, kidney, respiratory, and mental health complications.

The risk for incident sequelae increased with age, pre-existing conditions, and admission to hospital for covid-19, but in adults aged ≤50 and those with no pre-existing conditions or not admitted to hospital for covid-19, the risk for some clinical sequelae was still elevated.

The results indicate the excess risk of developing new clinical sequelae after the acute phase of SARS-CoV-2 infection, including specific types of sequelae less commonly seen in other viral illnesses. Although individuals who were older, had pre-existing conditions, and were admitted to hospital because of covid-19 were at greatest excess risk, younger adults (aged ≤50), those with no pre-existing conditions, or those not admitted to hospital for covid-19 also had an increased risk of developing new clinical sequelae. The greater risk for incident sequelae after the acute phase of SARS-CoV-2 infection is relevant for healthcare planning.

Full paper: [Risk of clinical sequelae after the acute phase of SARS-CoV-2 infection: retrospective cohort study](https://www.bmj.com/content/bmj/373/bmj.n1098.full.pdf)

Related editorial: [Unpacking post-covid symptoms](https://www.bmj.com/content/373/bmj.n1173)

**Title:** Bereavement care during and after the COVID-19 pandemic

British Journal of General Practice | May 2021

The scale of the impact Covid -19 has had on bereavement is now emerging: for every Covid-19 death it is estimated that up to nine people are affected by bereavement, and those bereaved are likely to display higher levels of prolonged grief symptoms.

For all people bereaved during this period, whether from Covid-19, other conditions, or deaths prior to the pandemic, there are multiple risk factors for complex grieving: an increase in sudden and unexpected deaths; restrictions on visiting family members at the end of life; disruption to mourning practices and funerals; and reduced access to social support networks.

Healthcare professionals, including GPs and other primary care practitioners, have also faced multiple challenges during this period in supporting bereaved people; adapting to remote technology, managing the increased complexities of bereaved relatives’ grief, and dealing with their own professional and personal experiences of bereavement.

This editorial believes it is timely to address the role of primary care in bereavement care, and to ask how general practice can better support bereaved people, and how practitioners can themselves be better supported in caring for bereaved people during and after the pandemic.

Full editorial: [Bereavement care during and after the COVID-19 pandemic](https://bjgp.org/content/bjgp/71/706/198.full.pdf)

Infection control

**Title:** Public reminded to let in fresh air when meeting others indoors to reduce the spread of COVID-19

Department of Health and Social Care | 17th May 2021

Everyone across England is being encouraged to remember, ‘when you let friends in, let fresh air in too’ in a new government advertising campaign. The public information campaign has launched on the same day groups of 6 people, or 2 households, will once again be able to meet indoors, and indoor hospitality, leisure and entertainment industries are reopening their doors.

As more people begin to spend time with friends and family inside, the campaign continues to highlight the importance of letting in fresh air. Fresh air helps disperse infected COVID-19 droplets in the air that may carry the virus, helping prevent the spread of the disease. The public are being encouraged to open windows when socialising at home and businesses are asked to ensure adequate ventilation at indoor venues.

Full detail: [Public reminded to let in fresh air when meeting others indoors to reduce the spread of COVID-19](https://www.gov.uk/government/news/public-reminded-to-let-in-fresh-air-when-meeting-others-indoors-to-reduce-the-spread-of-covid-19)

**Title:** Most UK adults had antibodies after one dose of AstraZeneca or Pfizer vaccine, data suggest

BMJ | 2021; 373: n1274 | 18th May 2021

More than nine in 10 UK adults have antibodies to SARS-CoV-2 following one dose of the Oxford AstraZeneca or Pfizer BioNTech vaccine, while almost everyone does after a second dose, preliminary data suggest.

A study of 8517 adults in England and Wales by University College London’s Virus Watch project found that 96.42% of people who had either vaccine had developed antibodies 28 to 34 days after their first dose, rising to 99.08% (95% CI 97.8 to 99.62) within seven to 14 days of the second dose.

Seropositivity rates and spike antibody levels rose more quickly following the first dose of the Pfizer vaccine (89.27%) than for AstraZeneca (66.27%) at 14 to 20 days, but were equivalent for both vaccines by 4 weeks.

Full detail: [Most UK adults had antibodies after one dose of AstraZeneca or Pfizer vaccine, data suggest](https://www.bmj.com/content/373/bmj.n1274)

Related research: [Spike-antibody responses following first and second doses of ChAdOx1 and BNT162b2 vaccines by age, gender, and clinical factors - a prospective community cohort study (Virus Watch)](https://www.medrxiv.org/content/10.1101/2021.05.12.21257102v2.full.pdf)

**Title:** Initial data show cancer patients have high protection after second dose of vaccine

Cancer Research UK | 18th May 2021

New research, awaiting independent review by other scientists but covered in the media, has examined the immune protection of over 8,000 people after both doses of either the Pfizer-BioNTech or Oxford-AstraZeneca vaccines. The study included 881 volunteers who had been diagnosed with cancer at some point in their lives, 74 with blood cancer.

Researchers at University College London and London School of Hygiene and Tropical Medicine found that a high proportion of volunteers had a positive response to the vaccine after receiving 2 doses, including those who had been diagnosed with cancer at some point in their lives.

Despite this, the researchers note that in between their first and second dose, fewer cancer patients and those on immunosuppressive treatments – including radiotherapy, chemotherapy or following an organ transplant – showed an immune response and that caution is still required until both doses are given.

Further detail: [Initial data show cancer patients have high protection after second dose of vaccine](https://scienceblog.cancerresearchuk.org/2021/05/21/covid-19-vaccine-and-cancer-latest-updates/)

**Title:** Second vaccine doses expedited in areas of England where new variant is high

BMJ | 2021; 373: n1266 | 17th May 2021

The government has said it was implementing a “belt and braces” approach to tackle rising cases of the B.1.617.2 variant of SARS-CoV-2, though some experts fear that the measures will not be sufficient as lockdown is eased.

Matt Hancock, health and social care secretary for England, told MPs on 17 May that 2323 cases of the variant first identified in India had now been confirmed in the UK. This was up from 1313 on 13 May.There were now 86 local authorities with five or more cases, he said. Of the new variant cases, 483 have been seen in Bolton and Blackburn with Darwen, where B.1.6.17.2 is now the dominant strain.

The government’s measures include bringing forward the appointment for the second dose of the vaccine from 12 to eight weeks after the first dose for the remaining people in the top nine priority groups who haven’t yet received their second dose, after advice from the Joint Committee on Vaccination and Immunisation. See also:

Full detail: [Second vaccine doses expedited in areas of England where new variant is high](https://www.bmj.com/content/373/bmj.n1266)

See also: [Government sets out new action to tackle B1.617.2 variant](https://www.gov.uk/government/news/government-sets-out-new-action-to-tackle-b16172-variant) | Department of Health and Social Care

**Title:** The epidemiological impact of the NHS COVID-19 App

Nature | 12th May 2021

The authors of this observational study investigated the impact of the NHS COVID-19 app for England and Wales, from its launch on 24 September 2020 through to the end of December 2020. During this period it was used regularly by more than a quarter of the total population.

The researchers' analysis indicates that a large number of COVID-19 cases were averted by contact tracing via the NHS app, ranging from approximately 100,000 to 900,000 depending on methodological details. For comparison, 1.9 million cases actually arose.

Full article: [The epidemiological impact of the NHS COVID-19 App](https://www.nature.com/articles/s41586-021-03606-z_reference.pdf)

**Title:** COVID-19 vaccine booster study launches in UK

Department of Health and Social Care | 20th May 2021

Thousands of volunteers will receive a booster COVID-19 vaccine in a new clinical trial. The Cov-Boost study, led by University Hospital Southampton NHS Foundation Trust and backed by £19.3 million of government funding through the Vaccines Taskforce, will trial seven vaccines and will provide vital data on the impact of a third dose on patients’ immune responses.

It will give scientists from around the globe and the experts behind the UK’s COVID-19 vaccination programme a better idea of the impact of a booster dose of each vaccine in protecting individuals from the virus. The initial findings, expected in September, will help inform decisions by the Joint Committee on Vaccination and Immunisation (JCVI) on plans for a booster programme from autumn this year.

Further detail: [COVID-19 vaccine booster study launches in UK](https://www.gov.uk/government/news/world-first-covid-19-vaccine-booster-study-launches-in-uk--2)

See also:

* [COV-Boost study](https://www.covboost.org.uk/)
* [Third dose of Covid jab to be trialled in UK](https://www.bbc.co.uk/news/health-57174733) | BBC News

**Title:** 7 in 10 UK adults receive first dose of coronavirus (COVID-19) vaccine

Department of Health and Social Care | 19th May 2021

More than 70% of UK adults have received a first dose of a COVID-19 vaccine, the latest figures show. Health services across the UK have now administered a total of 57.8 million vaccines between 8 December and 18 May, including 36.9 million people with their first dose (70.2%) and 20.8 million with both doses (39.6%), ensuring they have the strongest possible protection against COVID-19 from a second dose.

Full detail: [7 in 10 UK adults receive first dose of coronavirus (COVID-19) vaccine](https://www.gov.uk/government/news/7-in-10-uk-adults-receive-first-dose-of-coronavirus-covid-19-vaccine)

**Title:** Efficacy of NVX-CoV2373 Covid-19 Vaccine against the B.1.351 Variant

New England Journal of Medicine | 20th May 2021

This randomized, phase 2 trial compared the NVX-CoV2373 nanoparticle vaccine with placebo in participants in South Africa, including 30% who were seropositive at baseline. Overall vaccine efficacy was 49.4%, with the B.1.351 variant identified in more than 90% of isolates.

The study concludes that the NVX-CoV2373 vaccine was efficacious in preventing Covid-19, with higher vaccine efficacy observed among HIV-negative participants. Most infections were caused by the B.1.351 variant.

*This article was published on May 5, 2021, at NEJM.org. This is the New England Journal of Medicine version of record, which includes all Journal editing and enhancements*

Full article: [Efficacy of NVX-CoV2373 Covid-19 Vaccine against the B.1.351 Variant](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2103055?articleTools=true)

**Title:** A novel strategy for SARS-CoV-2 mass screening with quantitative antigen testing of saliva: a diagnostic accuracy study

The Lancet Microbe | 19th May 2021

Quantitative RT-PCR (RT-qPCR) of nasopharyngeal swab (NPS) samples for SARS-CoV-2 detection requires medical personnel and is time consuming, and thus is poorly suited to mass screening. In June, 2020, a chemiluminescent enzyme immunoassay (CLEIA; Lumipulse G SARS-CoV-2 Ag kit, Fujirebio, Tokyo, Japan) was developed that can detect SARS-CoV-2 nucleoproteins in NPS or saliva samples within 35 min. This study assessed the utility of CLEIA in mass SARS-CoV-2 screening.

CLEIA testing of self-collected saliva is simple and provides results quickly, and is thus suitable for mass testing. To improve accuracy, the authors propose a two-step screening strategy with an initial CLEIA test followed by confirmatory RT-qPCR for intermediate concentrations, varying positive and negative thresholds depending on local prevalence. Implementation of this strategy has expedited sample processing at Japanese airports since July, 2020, and might apply to other large-scale mass screening initiatives.

Full article: [A novel strategy for SARS-CoV-2 mass screening with quantitative antigen testing of saliva: a diagnostic accuracy study](https://www.thelancet.com/action/showPdf?pii=S2666-5247%2821%2900092-6)

**Title:** COVID-19 outbreaks following full reopening of primary and secondary schools in England: Cross-sectional national surveillance, November 2020

The Lancet Regional Health – Europe | 18th May 2021

The full reopening of schools in September 2020 was associated with an increase in COVID-19 cases and outbreaks in educational settings across England.

A higher proportion of secondary schools than primary schools reported a COVID-19 outbreak and experienced larger outbreaks across multiple school year groups. The higher attack rate among teaching staff during an outbreak, especially in primary schools, suggests that additional protective measures may be needed.

Full article: [COVID-19 outbreaks following full reopening of primary and secondary schools in England: Cross-sectional national surveillance, November 2020](https://www.thelancet.com/action/showPdf?pii=S2666-7762%2821%2900097-1)

**Title:** Covid-19 vaccination hesitancy

BMJ | 2021; 373: n1138 | 20th May 2021

A major threat to the impact of vaccination in preventing disease and death from covid-19 is low uptake of vaccines. This article offers on overview of vaccine hesitancy and some approaches that clinicians and policymakers can adopt at the individual and community levels to help people make informed decisions about covid-19 vaccination.

* Lack of confidence in vaccines for covid-19 poses direct and indirect threats to health, and could derail efforts to end the current pandemic
* Concerns about unknown future effects, side effects, and a lack of trust are common reasons given by people who say they are unlikely to have a covid-19 vaccine
* No single intervention is likely to be able to address vaccine hesitancy
* Consider barriers to uptake of vaccination at a population level and in groups who have lower rates of vaccine uptake
* Develop local approaches by engaging members of the community and co-producing communications and materials that meet population needs

Full detail: [Covid-19 vaccination hesitancy](https://www.bmj.com/content/373/bmj.n1138)

**Title:** Pfizer/BioNTech COVID-19 vaccine shelf-life extended from 5 to 31 days, says MHRA

Medicines and Healthcare products Regulatory Agency | 20th May 2021

New storage conditions for the Pfizer/BioNTech COVID-19 vaccine, that extend the length of time the thawed vaccine can be stored at normal fridge temperatures from 5 days to 31 days, have today been approved by the Medicines and Healthcare products Regulatory Agency (MHRA).

The Pfizer/BioNTech vaccine, which was the first COVID-19 vaccine to be approved by the UK regulator, must be stored at ultra-low temperatures until use. The changes, that extend the shelf-life once thawed, are therefore expected to make storage easier and possible for a wider range of health facilities.

The change was approved following the MHRA’s detailed review of additional stability data submitted to the regulator by Pfizer.

Full detail: [Pfizer/BioNTech COVID-19 vaccine shelf-life extended from 5 to 31 days, says MHRA](https://www.gov.uk/government/news/pfizerbiontech-covid-19-vaccine-shelf-life-extended-from-5-to-31-days-says-mhra)

**Title:** Incident SARS-CoV-2 Infection among mRNA-Vaccinated and Unvaccinated Nursing Home Residents

New England Journal of Medicine | 19th May 2021

The authors examined incident SARS-CoV-2 infection after mRNA vaccination among residents of 280 nursing homes in the US. A total of 18,242 residents received at least one dose, and 13,048 received both. A total of 3990 residents were unvaccinated.

The incidence of infection decreased over time among both vaccinated residents and unvaccinated residents, decreasing from 4.5% after the first dose to 0.3% after the second dose. Most infections were asymptomatic, and the incidence of both symptomatic and asymptomatic infections decreased.

These findings show the real-world effectiveness of the mRNA vaccines in reducing the incidence of asymptomatic and symptomatic SARS-CoV-2 infections in a vulnerable nursing home population. The observation of a reduced incidence of infection among unvaccinated residents suggests that robust vaccine coverage among residents and staff, together with the continued use of face masks and other infection-control measures, is likely to afford protection for small numbers of unvaccinated residents in congregate settings.

The authors suggest the continued observation of incident cases after vaccination highlights the critical need for ongoing vaccination programs and surveillance testing in nursing homes to mitigate future outbreaks.

Full detail: [Incident SARS-CoV-2 infection among mRNA-vaccinated and unvaccinated nursing home residents](https://www.nejm.org/doi/pdf/10.1056/NEJMc2104849?articleTools=true)

**Title:** Contact Tracing for Covid-19 — A Digital Inoculation against Future Pandemics

New England Journal of Medicine | May 19th 2021

Contact tracing is a crucial public health practice that has been a part of epidemic responses for centuries. This perspective piece suggests that lessons can be learned from the deployment of digital technologies to augment contact tracing during this pandemic.

Full detail: [Contact tracing for Covid-19 — a digital inoculation against future pandemics](https://www.nejm.org/doi/pdf/10.1056/NEJMp2102256?articleTools=true)

**Title:** New Variant Assessment Programme

Public Health England | 20th May 2021

The New Variant Assessment Programme (NVAP) is an offer of UK capacity and expertise to detect and assess new variants of SARS-CoV-2 around the world. The platform has been set up by Public Health England (PHE) and aims to deploy the UK’s unique sequencing and virus assessment capabilities to help other countries respond to coronavirus (COVID-19) and strengthen global health security.

The NVAP will also enable the biological assessment of emerging variants, strengthening horizon scanning and public health decision-making, both in this country and abroad. This includes a risk assessment from the point when a mutation is first identified, to ongoing assessment as more information becomes available.

Full detail: [New Variant Assessment Programme](https://www.gov.uk/guidance/new-variant-assessment-programme)

**Title:** Mix-and-match COVID vaccines trigger potent immune response

Nature | 18th May 2021

Vaccinating people with both the Oxford–AstraZeneca and Pfizer–BioNTech COVID-19 vaccines produces a potent immune response against the virus SARS-CoV-2, researchers conducting a study in Spain have found.

Preliminary results from the trial of more than 600 people — announced in an online presentation on 18 May — are the first to show the benefits of combining different coronavirus vaccines. A UK trial of a similar strategy reported safety data last week, and is expected to deliver further findings on immune responses soon.

Researchers hope that such mix-and-match COVID-19 vaccination regimens will trigger stronger, more robust immune responses than will two doses of a single vaccine, while simplifying immunization efforts for countries facing fluctuating supplies of the various vaccines.

Full detail: [Mix-and-match COVID vaccines trigger potent immune response](https://www.nature.com/articles/d41586-021-01359-3)

workforce wellbeing

**Title:** Samaritans to extend help for frontline health and care workers

The Guardian | 16th May 2021

The Samaritans is extending its help for frontline health and care workers in England amid rising demand for long-term support for stress and anxiety.

More than 20,000 health and care workers have contacted the charity’s helplines since Covid started spreading last spring, and the Department of Health and Social Care has agreed to extend funding for a dedicated line until at least September.

The Samaritans said many callers were describing feelings of guilt about not living up to “superhero” expectations. Others were reporting physical and emotional exhaustion 15 months since the pandemic set in.

Full article: [Samaritans to extend help for frontline health and care workers](https://www.theguardian.com/world/2021/may/16/samaritans-extend-helpline-frontline-health-care-worker-england-wales-covid-related-stress)

**Title:** How can I refocus on my career after the pandemic?

BMJ | 2021; 373: n1209 | 17th May 2021

Working through an extremely difficult period has left some doctors with an opportunity to assess their career options. This article discusses what next steps might be useful at this stage.

Full detail: [How can I refocus on my career after the pandemic?](https://www.bmj.com/content/373/bmj.n1209)

**Title:** Senior hospital doctors have been left with moral injury, BMA warns

BMJ | 2021; 373: n1298 | 20th May 2021

The covid-19 pandemic has left some hospital consultants suffering from moral injuries after they were forced to act against their moral compass, the chair of the BMA’s Consultants Committee has warned.

Speaking at the BMA’s annual consultants conference held online on 19 May, Rob Harwood said that consultants had faced the pandemic head on, working long hours, sometimes without correct or adequate personal protective equipment, and had seen their patients and colleagues die in unprecedented numbers. He said that the psychological impact of being unable to do what they believed was right had been too much for some doctors, who had been left with moral injury as a result.

Further detail: [Senior hospital doctors have been left with moral injury, BMA warns](https://www.bmj.com/content/373/bmj.n1298)

**Title:** Offer staff military-style mental health support, say healthcare leaders

BMJ | 2021; 373: n1292 | 20th May 2021

The government should take inspiration from the mental health services offered to veterans when designing services for NHS staff who have worked during the pandemic, leading healthcare organisations have urged.

The call from 13 organisations, including the BMA and several royal colleges, follows research conducted by Neil Greenberg, professor of defence mental health, and colleagues, which showed that NHS staff working in critical care during the pandemic reported more than twice the rate of probable post-traumatic stress disorder (PTSD) than the rate found in military veterans who had recently experienced combat.

Full detail: [Offer staff military-style mental health support, say healthcare leaders](https://www.bmj.com/content/373/bmj.n1292)

**Title:** Critical care work during COVID-19: a qualitative study of staff experiences in the UK

BMJ Open | 18th May 2021

The objective of this study was to understand NHS staff experiences of working in critical care during the first wave of the COVID-19 pandemic in the UK.

Forty NHS staff working in critical care, including 21 nurses, 10 doctors and advanced critical care practitioners, 4 allied health professionals, 3 operating department practitioners and 2 ward clerks participated in this qualitative study. The authors purposefully sought the experiences of trained and experienced critical care staff and those who were redeployed.

COVID-19 presented staff with a situation of extreme stress, duress and social emergency, leading to a shared set of experiences which we have characterised as a community of fate. This involved not only fear and dread of working in critical care, but also a collective sense of duty and vocation. Caring for patients and families involved changes to usual ways of working, revolving around: reorganisation of space and personnel, personal protective equipment, lack of evidence for treating COVID-19, inability for families to be physically present, and the trauma of witnessing extreme patient acuity and death on a large scale. The stress and isolation of working in critical care during COVID-19 was mitigated by strong teamwork, camaraderie, pride and fulfilment.

COVID-19 has changed working practices in critical care and profoundly affected staff physically, mentally and emotionally. Attention needs to be paid to the social and organisational conditions in which individuals work, addressing both practical resourcing and the interpersonal dynamics of critical care provision.

Full article: [Critical care work during COVID-19: a qualitative study of staff experiences in the UK](https://bmjopen.bmj.com/content/bmjopen/11/5/e048124.full.pdf)

Health management

**Title:** Initial learning from the government’s response to the COVID-19 pandemic

National Audit Office | 19th May 2021

Over the last year, the National Audit Office has reported on the breadth of government’s response to COVID-19. This report draws out the initial learning from this work to help government evaluate its performance, capitalise on new ways of working and better manage potential future emergencies.

Like many countries, the UK was not as prepared for the pandemic as it could have been, and government lacked detailed contingency plans to manage the unfolding situation. To deal with the crisis, government has had to streamline decision-making and coordinate efforts across multiple departments, public and private sector bodies. There are many examples of impressive national and local responses to the urgent need for healthcare and economic support on an unprecedented scale.

The response to the pandemic has provided a vast amount of new learning, both from what has worked well and what has not. It has highlighted the importance of government adopting a more systematic approach to preparing for crises, improving the resilience of key services and making better use of data. Working at pace naturally introduces greater levels of risk, but being transparent, properly documenting decisions and managing conflicts of interest is essential if government is to maintain public trust that taxpayers’ money is being spent appropriately and fairly.

COVID-19 has also laid bare existing fault lines within society and has exacerbated inequalities. An unreformed adult social care system, workforce shortages, issues caused by legacy IT systems, and the financial pressure felt by central and local government all require long-term solutions.

Full report: [Initial learning from the government’s response to the COVID-19 pandemic](https://www.nao.org.uk/wp-content/uploads/2021/05/Initial-learning-from-the-governments-response-to-the-COVID-19-pandemic.pdf)

See also: [Poor links between NHS and social care weakened England’s response, says NAO](https://www.bmj.com/content/373/bmj.n1279) | BMJ

**Title:** Post-covid reforms: can we avoid fighting the last war?

BMJ | 2021; 373: n1184 | 19th May 2021

Covid-19 has exposed glaring gaps in the global system for preventing, detecting, and responding to potential pandemics. Attention to, and political momentum for, reform is building with a series of high level international reviews, and calls for a pandemic treaty by more than 25 heads of state and the director general of the World Health Organization.

This BMJ analysis explains why post-pandemic reforms are unlikely to leave the world fully prepared for the next emergency and argues for a focus on strong monitoring systems and flexible arrangements.

Full detail: [Post-covid reforms: can we avoid fighting the last war?](https://www.bmj.com/content/373/bmj.n1184)

other

**Title:** Excess deaths associated with covid-19 pandemic in 2020: age and sex disaggregated time series analysis in 29 high income countries

BMJ | 2021; 373: n1137 | 19th May 2021

The objective of this research was to estimate the direct and indirect effects of the covid-19 pandemic on mortality in 2020 in 29 high income countries with reliable and complete age and sex disaggregated mortality data.

Approximately one million excess deaths occurred in 2020 in these 29 high income countries. Age standardised excess death rates were higher in men than women in almost all countries. Excess deaths substantially exceeded reported deaths from covid-19 in many countries, indicating that determining the full impact of the pandemic on mortality requires assessment of excess deaths.

Full article: [Excess deaths associated with covid-19 pandemic in 2020: age and sex disaggregated time series analysis in 29 high income countries](https://www.bmj.com/content/bmj/373/bmj.n1137.full.pdf)

Related editorial: [Measuring the impact of covid-19](https://www.bmj.com/content/373/bmj.n1239)

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We also produce a range of subject-specific news feeds to ensure our clinical and professional teams stay up to date with developments in their work areas. Please visit our [website](http://www.trftlibraryknowledge.com/) for more information

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